



Name: \_\_\_\_\_  
Mr. Tiénou-Gustafson & Mr. Bielmeier  
Geometry, Period \_\_\_\_\_  
Due Date: Mon, 30 Mar 2015

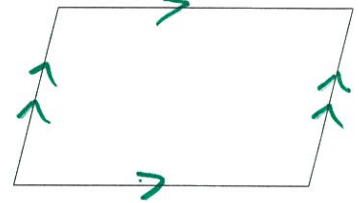
HW129 All Quadrilaterals

Geometry  
Homework

Fill in the blanks. Demonstrate each statement by marking the figure to the right. *Use your purple sheet*

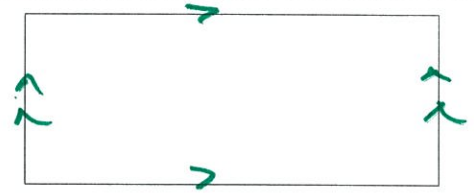
1) Parallelogram

1. The \_\_\_\_\_ sides are parallel
2. The \_\_\_\_\_ sides are also \_\_\_\_\_
3. The opposite angles are \_\_\_\_\_
4. The \_\_\_\_\_ bisect each other
5. All \_\_\_\_\_ angles are supplementary



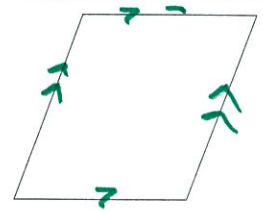
2) Rectangle

1. All properties of a \_\_\_\_\_ apply to rectangle
2. All angles are \_\_\_\_\_ angles
3. The diagonals are \_\_\_\_\_



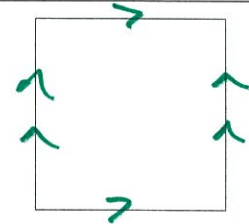
3) Rhombus

1. All the properties of a \_\_\_\_\_ applies to rhombus
2. All the \_\_\_\_\_ are congruent (rhombus is equilateral)
3. The \_\_\_\_\_ bisect the angles
4. The diagonals are \_\_\_\_\_ bisectors of each other
5. The diagonals divide the rhombus into \_\_\_\_\_ congruent right triangles



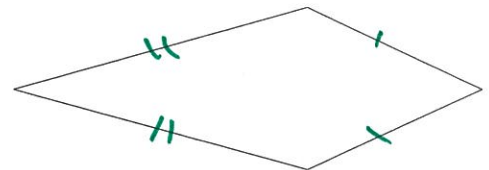
4) Square

1. All properties of a \_\_\_\_\_ apply to square
2. All properties of rhombus also apply to \_\_\_\_\_
3. The \_\_\_\_\_ form four isosceles right \_\_\_\_\_



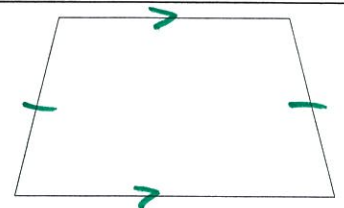
3) Kite

1. Two pairs of consecutive sides are \_\_\_\_\_
2. The \_\_\_\_\_ are perpendicular
3. One diagonal is perpendicular \_\_\_\_\_ of the other
4. One pair of \_\_\_\_\_ angles are congruent



6) Isosceles Trapezoid

1. The legs are \_\_\_\_\_
2. The bases are \_\_\_\_\_
3. The upper base angles are \_\_\_\_\_
4. The \_\_\_\_\_ base angles are also congruent
5. The \_\_\_\_\_ are congruent
6. Any lower base angle is \_\_\_\_\_ to any upper base angle



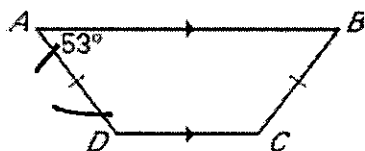
II. Directions: Match the description with all the terms that fit it.

- |              |                       |                  |                       |
|--------------|-----------------------|------------------|-----------------------|
| a. Trapezoid | b. Isosceles triangle | c. Parallelogram | d. Rhombus            |
| e. Kite      | f. Rectangle          | g. Square        | h. All quadrilaterals |

- \_\_\_\_\_ Diagonals bisect each other.
- \_\_\_\_\_ Diagonals are congruent.
- \_\_\_\_\_ Opposite sides are congruent.
- \_\_\_\_\_ Both diagonals bisect angles.
- \_\_\_\_\_ Diagonals are perpendicular.
- \_\_\_\_\_ Measure of interior angles sum to  $360^\circ$
- \_\_\_\_\_ Opposite angles are congruent.
- \_\_\_\_\_ Diagonals are perpendicular bisector of each other.

III. Directions: Show all work.

1) Find the measurements of angle B, C, and D.



6) Which of the following quadrilaterals have diagonals that are perpendicular?

- Parallelogram
- Rhombus
- Square
- Kite

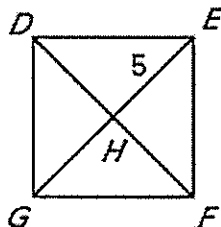
- I
- II and III only
- II, III, and IV
- II and IV only
- All of the above

7) If one diagonal of a rhombus is 10 cm and the other 24 cm, how long is each side of the rhombus?

To prove your answer above, draw four different diagrams with their diagonals.

8) Find the length of DE if DEFG is a square.

- 5
- $5\sqrt{2}$
- 6
- $6\sqrt{2}$



Justify your answer in a sentence:

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Parallelogram	Rhombus
Square	Kite